

INSTRUCTIONS
AND
OBSERVATIONS
Relative to the Navigation
OF THE
WINDWARD and GULPH
PASSAGES,

As laid down in two large CHARTS,

Dedicated, by PERMISSION,

To the RIGHT HONOURABLE
The LORDS COMMISSIONERS
of the ADMIRALTY,

By ROBERT BISHOP,
Many Years a Master in the ROYAL NAVY.

L O N D O N :

Printed for the AUTHOR, and fold, with the CHARTS,
at the *Jamaica Coffee-House*.

M.DCC.LXI.

INSTRUCTIONS

AND

QUESTIONS

RELATIVE TO THE

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INTRODUCTION.

AFTER above twenty years employment at Sea, mostly in the Royal Navy, I was of opinion that by the help of my Log-Books and other Observations which I had made with great care, I could collect Materials sufficient to be of future service to Mankind, and particularly to such of my Countrymen as may navigate the Seas which I had frequented. As most of my voyages and appointments have been to *Jamaica*, I have had the safety of that Navigation much at heart, and that the more, because I have not been able to find any Charts yet made public, that can be of any tolerable help in sailing those Seas. I therefore set myself heartily to work; and, after much time, labour, and expence, have compleated two large Sea-charts of the Passages to and from *Jamaica*; the one between the islands of *Cuba* and *Hispaniola*,

ii INTRODUCTION.

Hispaniola, commonly called the *Windward Passage*; the other between the coast of *Florida* and the *Bahama* islands, called the *Gulph Passage*. This my Performance, having been well approved of by many good judges who have often gone those Passages, I was thereby induced to lay my Draughts before the Right Honourable the Lords Commissioners of the Admiralty; and have been so fortunate as to meet with their Approbation, and to obtain leave to inscribe them to their Lordships when published.

I have caused my Draughts to be fairly engraven, in two separate Charts, with printed Instructions and Remarks at large, proper to each; to the end, that the purchasers may be at their choice to provide themselves of one or both, as may best suit their convenience.

INSTRUCTIONS and OBSERVATIONS

Relative to the

WINDWARD PASSAGE.

Of Bearings, Distances, Shoals, Rocks, &c.
with Places of Anchorage, Wooding, Wa-
tering, &c. about the Island of Hispaniola.

I Begin with *Altavalo*, as being the most southerly rock of *Hispaniola*, the land you steer for in going down from the *Leeward Islands* to *Jamaica*: For by keeping in that latitude, you avoid falling into a deep dangerous bay called *Juliana*, lying to N. E. of *Altavalo*; and moreover to the westward of this is the *French* part of *Hispaniola*, for which the Draught is made.

Altavalo, then, is a high picked rock, and at most bearings makes the resemblance of a bell. It lies in lat. 17 d. 27 m. N. and S. W. from the island of *Beata*, dist. $7\frac{1}{2}$ miles, and from the *Frails* S. S. E. dist. 8 miles. From the western *False Cape*, to the S. W. point of *Beata* S. E. b. S. dist. 16 miles. From the western *False Cape* to *Altavalo* S. b. E. $\frac{1}{2}$ E. dist. 19 miles; and from the same *False Cape* to

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the *Frails* S. $\frac{1}{2}$ E. dist. 11 miles. From the same *False Cape* to the river in *Sambay* N. N. W. northerly dist. 19 miles. The two *False Capes* bear from each other E. S. E. and W. N. W. between which is the bay called *Blew Hole*, where there is good fishing, and on shore wild bullocks and hogs.

At the west end of *Beata* bringing the S. W. point S. or S. b. W. dist. 2 or 3 miles there is anchorage in 10 or 12 fathom water, the N. W. point bearing about N. N. E. At the last mentioned point you may anchor, and there is a well with fresh water in it at times.

A small distance from *Altavalo* N. W. there is a small rock, and a mile and a half further runs out a shallow, where we had 16 fathom water, sandy ground.

The *Frails*, is a clump of steep rocks ; you may sail within a quarter of a mile of them all round.

Within the western *False Cape* you may anchor ; but you must come within a mile of shore before you can have soundings. The wind is for the most part off shore, and there is good fishing.

If you would go into *Sambay*, you may keep *Altavalo* just open with the western *False Cape*. When you are at anchor off the mouth of *Sambay*, ^{River} the western *False Cape* will bear S. S. E. southerly dist. 19 miles.

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At about midway between this *False Cape* and the river, you come upon soundings from 32 to 16, and so gradually down to 6 or 7 fathoms, at about a mile from the river, all good ground.

Above the river's mouth there are two square brown places or savannahs, which may guide you in anchoring. The river *Sambay* is extremely convenient for a fleet to wood and water in, as there is for the most part but little wind, and that off shore; for the sea winds come not in above two or three hours in a day. In the bay there is plenty of fish both for the net and hook; and at times you may meet with *Spanish* or *French* hunters, which have their huts for curing and jerking wild bullocks and hogs.

To the westward of *Sambay* dist. 13 or 14 miles, there is a small harbour called *Trou*, frequented by the barks wherein the hunters carry their meat to market.

Jackemel, the next port to *Trou*, is a fine harbour, with fortifications at the entrance, and is known at sea by the sudden cut-off or drop of a hill, seen over another long hill at the upper part of the harbour; by running in for which drop, you will be led directly in for the harbour's mouth.

From *Jackemel* to *Cape Bennet* the course is W. S. W. dist. 4 leagues. It is very remarkable on account of its white cliffs.

From *Cape Bennet* to the east end of the isle of *Ash*, is W $\frac{1}{2}$ southerly, dist. 18 or 19 leagues. When you are off at sea, and abreast of the isle of *Ash*, the middle of the saddle hill over *Port Louis* bears N. b. E. easterly, and then the east end of the isle of *Ash* is between you and it. This island is low, and lies so under the other land of the main, that you must be near it before you will be able to distinguish it from the main.

The said hills over *Port Louis* is the second high land from the west end of *Hispaniola*. The westernmost is the highest, and is called *Grandtance*: It may be seen 30 or 40 leagues at sea, on both sides the island; so that knowing the situation and bearing, you may be secure of a good guide in working up through the *Windward Passage*. I have often seen and set this hill between *Cape Maize* and *Cape Nicholas*.

There is a rock called the *Diamond*, bearing E. northerly from the entrance of *Port Louis*, dist. 3 leagues, and from the E. end of the isle of *Ash* N. E. b. N. five leagues.

The *Ackens Keys* lie a little to the eastward of it, and bear from the E. end of the Isle of *Ash* N. E. northerly. The S. end of the isle of *Ash* and *Point Baccho*, when in one, bear E. b. N. $\frac{1}{2}$ N. and W. b. S. $\frac{1}{2}$ S. dist. 2 or 3 leagues. There is a reef off the east end of the isle of *Ash*, about a mile, which
must

must be avoided when you are going into *Port Louis*.

To anchor at the west end of the isle of *Ash*, you may sail by the west part of the island within a mile or two, so as to bring the aforesaid point to bear S.E. b.S. in $4\frac{1}{2}$ fathom water; and then the eastermost *White Cliff* on the main will bear northwesterly, and the entrance of *Port Louis* N.E. and *Point Bacco* S.W. b.S. and the *Grand Coies* N.W. by N. All hereabouts is good ground.

There is a small sandy key which lies a little off the N.W. point of the isle of *Ash*. Bring this key on the aforesaid point, and at about a mile distance you will find five fathom, sandy ground, with good anchoring and sounding a long way to the southward.

All along the E. side of *Point Bacco* there is a reef of rocks, about a mile from the shore, to which you should be attentive as you are coming out from the west end of the isle of *Ash*.

The course from *Point Bacco* to cape *Tiberon* is W. b. N. $\frac{1}{4}$ N. dist. 10 or 11 leagues.

To anchor in *Tiberon* bay, you must bring the eastermost point to bear S.E. b.S. dist. $\frac{3}{4}$ of a mile; and then you will be right against the river or watering place. There is sounding a good way off from the bay, and so round the cape, as far as cape *Donna Maria*. *Tiberon* bay lies in Lat. 18 d. 18 m. N.

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From cape *Tiberon* to *Navasa* is 12 leag. *Navasa* lies in Latit. 18 d. 23 m. N.

From cape *Tiberon* to *Irish Bay* point is N. N. W. and from thence to *Donna Maria* N. N. E.

To anchor in *Donna Maria* bay, you must bring the *White Cliff* in the bay to bear E. b. S. in 5 fathom water. The soundings, as you come into the bay, are gradual ; wherefore keep your lead going.

From *Navasa* to cape *Donna Maria*, the course is N. E. b. E. dist. 12 leagues.

From cape *Donna Maria* to cape *Rosa*, the distance is six leagues ; between which there are three small bays, where there are barcadiers for small vessels.

From cape *Rosa* to the *Great Cammate* the course is E. b. N. $\frac{1}{2}$ N. dist. 12 leagues,

The N. point of the *Great Cammate* and the W. end of the *Granive* bear from each other S. W. b. W. and N. E. b. E. dist. 9 leag.

From the W. end of the *Granive* to the reef of rocks which lies between the *Granive* and the main, when they are in one, the bearing is N. N. W. and S. S. E. dist. 4 or 5 leagues. This reef is dry for about 100 yards S. W. and N. E. and has gradual soundings to the rocks. The flat of the reef runs a long way to the N. E ; and the best working is between the reef and the main, because the main is bold, and continues so all the way up

to *Lewigan* or *Leogan* road; but in standing over to the *Granive* you will meet with overfalls of 13, 11, 9, 7 fathom water.

To anchor in *Lewigan* road, you must give the *Fort-point* a good birth of about a mile. You will see the white water, it being very rocky about the *Fort-point*. For coming to anchor, bring the *Fort-point* E. N. E. or N. E. b. N. dist. 2 miles, and you will have muddy ground in 18 fathom water, with the fort N. E. $\frac{1}{2}$ N. distance 1 mile, then the E. end of the *Great Granive* will bear N. W. b. N. and the W. end W. N. W. northerly, and the *Little Granive* N. W. $\frac{1}{2}$ N. dist. about 6 leag.

About 4 miles to the northward of the point of *Lewigan* you come to the overfalls in 20 fathom, and so to 13, 10, 7, 11.

The *Triangles* and the S. E. point of the *Little Granive* bear from each other N. E. easterly and S. W. westerly, dist. 5 leagues.

From the *Triangles* to *St Mark's Point* is N. W. b. W. dist. 5 leagues. By the *Triangles* there is good anchoring in 13 fathom water, coarse sand and shells.

St Mark's Point and the E. end of the *Granive*, when in one, bear S. b. E. and N. b. W. dist. about 5 leagues.

From *St Mark's Point* to *Arthabenite Point* the bearing is N. N. W. dist. about 3 leagues. Here is good gradual sounding all the way, 10 and 11 fathoms, and so up in the bight, where

where is *St Mark's Town*, with a good road for shipping, well secured by forts.

From cape *Donna Maria* to cape *Nicholas*, the course is N. E. b. E. distance 32 leagues.

From cape *Nicholas* to the Island of *Great Cammate*, the course S. dist. 22 leagues.

From the platform of cape *Nicholas* to the W. end of the *Great Granive* is S. S. E. dist. 15 leagues.

From the same platform to *Arthabenite* point is S. E. b. E. dist. 13 leagues.

From cape *Nicholas* to the *Mole* land point is N. N. E. dist. 3 or 4 miles ; between which two is the *Mole* itself where in a wet season you may get water at the head 3 or 4 miles up ; which may likewise be had after rains at the platform ; but in dry times neither of them afford any.

From the *Mole* land point to the W. end of the island of *Tortudas*, or *Tortugas*, or *Turtle* island, the course is N. E. b. E. dist. 13 leagues : In order to anchor at the W. end of this island, in $5\frac{1}{2}$ fathom water, sandy ground, you must bring that end N. W. b. N. dist. 3 miles, and the S. W. end of the same S. S. E. and a small reef in the bay N. N. E. dist. $\frac{3}{4}$ of a mile. There is a reef all along the inside of the island, otherwise there is a good working channel between the island and the main. The middle of *Tortudas* lies
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in Latit. 20 d. 13 m. N. it is 5 or 6 leagues long, and stretches E. b. S. and W. b. N.

Porta Piee lies within the island of *Tortudas*, with a place for large ships; when the high hill which is seen over *Porta Piee* bears S.W. b. S. then the E. end of the island is between you and it.

From the E. end of the island of *Tortudas* to cape *François*, the course is S.E.b.E. dist. 10 or 11 leagues.

From ditto to *Monta Christa*, or *Monte Christi*, or *the Grange*, E. b. S. distance 21 leagues.

To the westward of this mount there is a large flat, with several keys and shoals upon it. When the northermost key or shoal is in one with the mount, they bear E. and when we had 19 fathom water, and were about a mile distant from the shoal, cape *François* bore S.W. $\frac{1}{2}$ W. and the dry key in one with the high-land within the mount. To the southward of the dry shoals is a long flat of 10 or 11 fathom water which reaches as far as *Port Dauphin*, and so all along the outside of the reef which forms the harbour of cape *François*; to go into which harbour the leading mark is to keep the E. end of the island of *Tortudas* open with the point of the cape land.

On the outside of the cape land there is a little harbour called *Little Cape François*;
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and to the westward of the same cape land; there is a sandy bay with a bar, fit only for boats; five miles to the westward of which is a good place to anchor in, and likewise for watering, which we availed ourselves of during the war with *Spain*, and named it *Cumberland Bay*. You may anchor in 7 fathom water, bringing the point N. N. E. and the river where we filled our casks E. S. E. distance $\frac{3}{4}$ of a mile. A little to the westward of this is a most pleasant island, where the gentry of Cape *François* often regale themselves.

To the westward of *Monta Christa* there are gradual soundings from 12 to 5 fathoms. In order to anchor, bring the S. E. end of the little key to bear N. by E. & between that & a dry shoal lying to the W. S. W. of the foresaid key. There you have smooth riding and good ground. At the town of *Monta Christa* there is a river of fresh water, and a fort which was built by the *Spaniards*.

To the eastward of the mount you may also anchor in what depth of water you please, from 12 to 3 fathom, within a reef, where you will be sheltered from the N. E. winds. It is besides a good place to look out for ships coming from the eastward; for you are so much under the mount, that before they come very near they cannot distinguish you. The first year of the present war, as we were sailing

sailing from *New York*, it was my intention to come in by the *West Corcois* (the passage by which the *French* ships go out) in hopes of intercepting them; and the keys being low, we stood to the southward in the day-time, but kept off to the northward with little sail during the night. One evening seeing land, we tack'd and stood off: The next morning we stood in for the land, which we found to be the northermost key of *Turk's Island*, and about noon we were abreast of it; and I found, by observation, our Latit. to be 21 d. 47 m. N. Out of our main top we could then see the keys upon the *W. Corcos*, one of which bore W. N. W. another W. and a third of a great length S. W. My distance I judged to be about 4 leagues from the nearest, we then being 2 or 3 miles to the westward of the northern key of *Turks Island*; so we kept our course S. S. W. As we pass'd the first great key, we could see the vessels at anchor; keeping still the same course, we pass'd the second and the third keys, and by our run I was satisfied that the southermost key lies in Latitude 21 d. 30 m. N. At the mast-head I could see the *Corcos* key West southerly, stretching to the S. W. From the last key I made our course in the night S. b. E. distance 11 leagues; and in the morning, being calm, I tried for a current, but found none. Then from the mast-head I saw the

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high-land to the eastward of *Monta Christa*, bearing S. b. W. In often running over from *Monta Christa* to the *Corcos* bank, I always made the distance 20 or 21 leagues; whence I infer that the S. side of the *Corcos* bank lies in latitude 21 d. 5 m. N. Upon the edge of the reef are several dry patches of rocks; but the key is a good way in upon the bank, and when you come past the said patches of rocks, the bank inclines to the N. and N.N.W. distance 8 or 9 leagues. Then you pass by a key which is pretty bold to, but joined to the main key by a reef, the north side of which reef is the going into the south harbour. This key is called the *Little Corcos Key*, and lies in Lat. 21 d. 22 m. N. from which you hawl up N.N.E. and then run along by a narrow key 5 or 6 leagues, whence it rounds up more to the eastward: Here is a place for anchoring, and small craft can go in; but the northermost part of the bank and reef runs up as far as Latitude 22 d. 5 m. N.

From the *Corcos Key* to *Mayaguana* the course is N.W.byW. distance 20 leagues.

From ditto to the E. end of *Heaneago* is W. distance 15 or 16 leagues.

From ditto to Cape *François* is S. by E. distance 36 leagues.

In coming through between the *Corcos Key* and *Heaneago*, I have seen both at the mast-head.

At

At the E. end of *Heaneago*, there is a remarkable rock, which when it bore N. W. $\frac{1}{4}$ W. distance about 2 leagues, we saw the ground under us, having no more than $3\frac{1}{2}$ fathom water. So we hawled out S. S. E. and kept the lead a-going till we had from $3\frac{1}{2}$ to 4, $4\frac{1}{2}$, 7, 8, 10 fathom, and then no ground. When the foresaid rock bore N.N.W. distance 4 or 5 leagues, then the E. end of *Little Heaneago* bore N.W. by W. $\frac{1}{2}$ W. distance 4 leagues, Latitude observed 21 d. 25 m. N.

Heaneago stretches about W. S. W. and E.N.E. being in length 13 or 14 leagues. It is environed with a reef, and about mid-way there is a remarkable white rock just within the reef. The highest part of the key is about 5 or 6 miles to the eastward of the S.W. point, being the first land you see when you come from the southward; but the S.W. is low and sandy, lying in Latit. 20 d. 57 m. N. If you would water at the pond, it lies about 4 or 5 miles to the northward of the S.W. point, when you will bring the westernmost point to bear N.W. by N. dist. 2 or 3 miles, where you may anchor in ten fathom water, taking care to look out for a good place to let go your anchor; for the water being clear, you may see the bottom. The watering place is in over the bank, and in rainy times you may have water out of the pond, but none in dry

dry weather. The westernmost point is about the middle of the W. end of the island; and from it the N. W. point bears N. $\frac{1}{2}$ E. 6 or 8 miles; between them is a shallow bay, with reefs in it. The S.W. and N.W. points are low and sandy.

From the S.W. end of *Great Heaneago* to *Acklins Key* N.N.W. $\frac{1}{2}$ W. dist. 24 leagues.

From the W. end of ditto to the *French Keys*, N. by E. dist. 30 leagues.

From the *French Keys* to *Atwood's Key*, N.N.W. dist. 11 leagues.

From ditto to the S.W. point of *Mayaguana* E.S.E. dist. 8 leagues.

From the W. end of *Mayaguana* to the W. *Corcos*, S.E. by E. dist. 20 leagues.

From the W. *Corcos Key* to *Cape François*, S. by E. dist. 36 leagues.

*Description of the Harbours, Shoals, &c. of
the East End of the Island of Cuba; with
Remarks, Instructions, &c.*

CAPE Cruz bears from the W. end of *Jamaica* N. b. E. $\frac{1}{2}$ E. dist. 27 leagues, in the lat. 19 d. 50 m. N. It is a low level land, with a bluff point: The East side stretches in N. N. E. and N. E. b. N. for 4 or 5 leagues, Without it there is an island called *Bird Island*, which makes a good harbour; for vessels may sail through between it and the land. It is also a good place for wooding and watering, and there is plenty of fish. You must make very bold ~~off~~ the shore, otherwise you will be apt to miss the entrance, because it lies obscure under the other land. There are also between this and *St Jago* several little places where small craft may go in, but which as yet we are not so well acquainted with as to be able to give an accurate description of them.

The *Copper Hills* is high, round, and picked land, about 15 or 16 leagues from *Cape Cruz*, and about 26 leagues to the westward of *St Jago*. They lay a little way in land, may be seen from most parts of the North side of *Jamaica*, and make pretty much alike at all bearings from thence.

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The *Moor Castle* of *St Jago* lies in lat. 19 d. 52 m. When the E. point of the entrance of *St Jago* bears N. E. then is the innermost battery shut in with the west point.

From *St Jago* to *Cumberland Harbour* is E. dist. 12 leagues; and when you come so far to the eastward, as to bring *Cumberland Harbour* N. dist. 8 or 9 miles, then the land to the westward of *Cumberland Harbour* and the *Moor Castle* will be in one, they bearing W. $\frac{1}{2}$ N. by compass, and the outermost land to the eastward E.N.E. From hence we saw the ^{high} ~~land~~ off *Grandtance* bearing S. E. $\frac{1}{2}$ E. and then observed and found ourselves in lat. 19 d. 45 m. N.

The going into *Cumberland Harbour* is plainly laid down in the Draught; the sounding is good 2 or 3 miles without the harbour, but there is a sunken rock on the star-board side going in, about a quarter of a mile from the shore, of 20 feet water, where we struck part of the *Augusta*'s false keel off. Otherwise the shore is bold, and good room to work in it, except off the south shore, where *Augusta River* comes out, there being a bank of sand and mud, by all means to be avoided. To anchor, you may bring *Augusta River*'s mouth to bear S. W. $\frac{1}{2}$ W. and the *Battery Point* S. S. E. Then you will have 6 fathom water. The harbour is in lat. 19 d. 50 m. N.

From

From *Cumberland Harbour* 5 leagues to the eastward, is a little river where many small vessels may lie. There is no more than 12 feet water upon the bar called *Escondeda*; and here you must be well acquainted before you can find out the mouth of the river, it being but narrow, and the west point running out narrow. The deepest water is close by this point; but there is anchoring a little to the eastward of the mouth of the harbour.

From *Cumberland Harbour* to *Hooka Point* or *Sphinks's Bay*, the course is E. b. N. $\frac{1}{2}$ N. dist. 16 leagues. You may anchor in the bay, bringing the eastermost point to bear E. S. E. dist. about $1 \frac{1}{2}$ mile, and then the plat-form land on *Hispaniola* will be in one with the point. The lat. is 20 d. 6 m. N. You may anchor in any water from 35 to 7 fathom, but 16 fathom is the best, and there is plenty of fish to be got with hooks. To the westward about 2 or 3 miles is a fresh water river, and at most times there are *Spanish* hunters, who will supply you with fresh provisions.

From *Hooka Point* to the extremity of *Cape Maize*, the course is N. E. dist. 5 leag. The cape is in lat. 20 d. 18 m. N. From it I have seen the high-land of *Grandtance* bearing S. b. E.

Cape Maize and *Cape Nicholas* bear from each other E. S. E. and W. N. W. dist. 18 or 19-leagues.

The high-land of *Grandtance* bears from *Cape Nicholas* S. b. W. westerly.

Cape Maize is a low sandy point, with a reef running from it about 2 or 3 miles; and about 4 leagues to the westward is a lagoon, where small vessels may go in.

Further on about 3 leagues is *Barraco Harbour*, a very good one, but narrow in the going in. However, you may know where the harbour is, by a little round hill called the *Anvil Hill*, being flat at top, and a little to the westard of the harbour. The E. side is the best to go in by, for the west side is sandy and flat.

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*Description of the Harbours, Shoals, &c. of
the Island of Jamaica; with Remarks, In-
structions, &c.*

WHEN you are bound in for *Port Royal*, you may run in bold towards *Plumb-Point*, and when you bring *Rock Fort* N.b.E. you will come over a cross ledge about 8 fathom, just as you are out, and in with the leading mark, which is the magazine of *Port Royal*, on the highest part of *Salt-pond-bill*, or on the *Nab*.

The next shoal you come to is the *Middle Ground*, which lies off from *Plumb Point* S. S. W. You may go between *Plumb Point* and the *Middle Ground*, which is the best channel, keeping well in-shore, till the leading mark is on, as afore said, and then you may go in safety.

Between *Gun Key* and the fort, there are three knowls to the southward of the fort, which make three channels : But between the fort and the first knowl is the best channel, the closest to the fort, and the deepest water : The leading mark for which channel is to keep the *Gun Key* a ship's length open of *Yellows Point*, and the breast mark is the church on the second embrazure of the fort. There is 16 feet on the northern knowl, and this channel is no more than 50 feet wide.

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When you are bound out of *Port Royal* harbour, upon weighing anchor, keep westward of the *Middle Ground*; because the current sets most commonly to the eastward in the morning; and be careful not to bring the church steeple upon the corner of the wall where the embrasures are, untill you bring *Yellows Hill* in one with *Lime Key*; and in case you should not see *Yellows Hill Point*, there is a mount on *Helfhire*, which, when open of *Salt Pan Hill*, you are then to the southward of the *Middle Ground*; and the leading mark for this *Middle Ground* (counting from the westward,) is the second embrasure with the church steeple.

In the next place, you are to hawl up, in order to avoid the *Turtle Heads*, so as to bring the church steeple to the eastermost part of the fort; and continue to keep that mark, till you bring the *Southern Key* on with *Yellows Point*, and then you may hawl to the eastward, as the wind will permit. But if you should not keep up to the leading mark, and the church steeple should come near the corner of the fort, you then must come to, or tack and stand in.

But the mark, when a-shore on the east side of the *Turtle Heads* and *Three fathom Bank*, is the church steeple upon the magazine of the fort, and *Spanish Town* land just open.

From

From *Port Royal* to *Portland* is S. W. dist. 10 leagues: But you must keep further to avoid *Rack Reef* and the key. There is sounding so far out, as to bring the eastermost land of *Helfire* to bear N. b. E. and *Rock Point* or the southermost land of *Portland* to bear N. W. b. N. for I have sounded at the said bearing from 17 to 23 fathom, and the next cast found no ground with 80 fathom line, though not a ship's length from the first to the last. Upon this flat are several keys, and going into *Old Harbour* from *Portland Point* E. dist. 3 and 4 miles, there are two keys, and *Negro Head Rock*; and N. E. are the other keys.

Right off from *Portland* there is gradual sounding for 8 or 9 miles.

From *Portland* S. dist. 13 or 14 leagues, lies *Portland Rock*.

To sail into *Withy Wood* road, you must keep to the westward, till you bring a little round hill in the bay to bear N. or N. b. W. (taking care in coming from the eastward to keep off shore so as to avoid *Rock Point*) and keep the same bearing as you run in for it, which will bring you in sight of the *Old Fort*, then between you and the hill, in these depths 10, 8, 7, 6, 5, 4, $3\frac{1}{2}$ fathom, then you will be within a mile and half of the shore. The fort N. E. is the best birth, by reason our boats can sail both ashore and a-board,

board, and then *Rock Point* will be on with the southermost point of *Portland*, bearing E. S. E.

From *Portland* to *Pedro Point* is W. b. N. dist. 10 leagues; between which is *Milk River*, a little to the westward of *Withy Wood*, and the going in is much the same.

Between *Great Point Pedro* and *Little Point Pedro*, is *Alligator Pond Reef*, a dry key 2 or 3 miles long. On the inside is three fathom water, and good soundings, off here and off *Point Pedro* for 4 or 5 miles, 20 fathom, sandy ground, and the edge of the soundings runs E. S. E.

To sail into *Black River* coming from the eastward, you are to keep *Pedro Point* open of *Parattee Point*, till you bring the church N.N.E. easterly, or the church on with the gap in the high-land, and that will carry you in the best of the channel. It is full of heads of coral rocks.

To anchor in *Blewfields Bay* coming from the eastward, you must keep down by the outside of the reef, or keep the land to the eastward open of the point, till you bring the leading mark, which is the overseer's house, and the tavern in one, bearing N. E. b. E. and, for your anchoring, bring the eastermost point to bear S. E. b. S.

Savanna la Mer bears about W.b.N. $\frac{1}{2}$ N. from *Blewfields*. The leading mark for going

ing in there, is to bring the fort north, keeping your lead going, which will lead you in the channel.

All around the W. end of *Jamaica* it is flat off with good sounding for a long way: And between the N. W. point, and *St Lucy*, is *Orange Bay*, *Green Island*, and *Davis's-Cove*. These are places which are but seldom used but by those who go thither on purpose to land, and have pilots on board.

The way of going into *St Lucy* harbour, coming from the eastward is, to open the harbour and steer right in, giving the point the fort is on a little birth; for there is a small reef which runs off from it, and in the middle of the harbour there is a small rock and steep all round.

Montigo Bay is E. N. E. dist. 25 miles. In going in there from the eastward, you must give the point a good birth of 5 or 6 miles as you come down, on account of the reef which runs off, till you open the town, and bring the *Gun Tavern* to bear S. E. then stand in for it, which will carry you clear off the reef to the westward, and thus run in till you shut in the point to the northward of the fort; and then you will come in upon soundings in the bay. To anchor, bring the fort to bear N. b. E. and the *Gun Tavern* E. b. S. then you will have 9, 10, or 11 fathom water.

In

In working hence to windward, when *Cuba* in clear weather is visible, you may discern a remarkable hill, the highest on *Cuba*, called *The Coopers Hill*, bearing from *Montigo Point* N. E. dist. 34 leagues, and from the E. end of *Jamaica* N. N. W. by which you may judge how far you are to windward at any other bearings.

To sail into *Port Anthony* coming from sea, bring the eastern part of the *Blew Mountains* to bear S. S. W. and steer in that course, which will bring you in sight of the commodore's house upon *Navy Island*. Keep that on your star-board side, keeping about mid-channel between *Navy Island* and the east point, or Mr *Plesam's* house, (which is two story high) open of the fort point. There is a reef in the middle of the easternmost harbour, of ten foot water, which you may anchor without, or go within it. If you choose the latter, you must keep over to the fort side till you open a great cotton tree with Mr *Trower's* house on the east shore; then you may hawl up and come to anchor in 7 fathom water, good holding ground both here and without; indeed it is difficult to get the anchors out of the ground.

If you would go into the western harbour, you then must open the store house with the point of *Navy Island* or Mr *Thompson's* house (which is upon the hill) clear of
the

the point where the king's wharf was; then steer in for that, which will lead you into the harbour, where you may anchor in what place you please. This channel is no more than 70 feet wide, with 15 or 16 fathom water in the middle.

In order to sail into *Anato Bay* from the eastward, steer down for *Green Castle* wind-mill, untill you bring old *Shaw's* house (in the middle of the bay) south of you; then steer in directly for the said house, which will carry you clear to the westward of the *School Masters*, the only shoal in the bay. As the bank is steep and narrow, the first sounding is 9 or 10 fathom water; wherefore you should have your anchor clear, and anchor in 6 or 7 fathom water; when you will be about a quarter of a mile from the shore.

To sail into *Porta Maria* from the eastward; you will see a high island, which must be kept a little to the larboard-bow, so as to give the north part of the said island a birth of a pistol-shot: Then luff right in, and anchor close under the island in 4 or 5 fathom water, where you will be within a cable's length of the island, and one and a half of the main. Small vessels may anchor between the island and the main, such as draw about 10 feet water. Note, that vessels which lye any time here, must buoy their cables,

bles, because ships are too often apt to heave their ballast overboard, and spoil the ground. If you are to sail from the eastward into *Orocobaca*, you must go in by the west of *Galana* or *Galina Point*: But if you are off at sea, and want to go in for *Galana Point*, you must bring the westernmost high-land of the *Blew Mountains* S. b. E. $\frac{1}{2}$ E. and keep it so, which will lead you in with it: But to anchor as aforesaid, bring the easternmost point of the reef N. E. b. N. dist. about a quarter of a mile, and a house upon the hill on the larboard side S. E. b. S. and the guard house on the west side of the river S. W. b. S. dist. half a mile, and the westernmost bluff point W. b. N. and then you will have $5 \frac{1}{2}$ fathom water, sandy ground: You may also anchor further in under the *Red Cliff*, bearing W. S. W. and there you will have deeper water.

From *Orocobaca* 8 or 9 miles to the westward is *Oche Rees*, or *Ochoreras Bay*, to anchor in which, you may sail by the reef to the westward. This reef spits off from the east side of the bay: So hawl up, and bring the westernmost part of the reef N.N.W. or N. W. in 7 fathom water. There is another reef to the southward of you, but as the water is very clear, your eye may be your guide, as also in most places where the water is clear.

From

From *Oche Rees* 8 miles to the westward is *St Anne's Harbour*. The usual method of going in there, as the water is clear, is to go close to the westernmost reef, leaving it on the star-board side: But there is always a pilot here.

Eleven miles further from *St Anne's* is *Dry Harbour*, a good place for small vessels, but the channel is narrow, and but 16 feet water.

From *Dry Harbour* 4 or 5 miles westward is *Rio Bona*, where a ship may lie and bring the point N. N. W in 8 or 9 fathom water: The bank is steep.

From *Rio Bona* to the westward is *Mathew Bray*, or *Martha Brea*, where vessels load; but it is frequented only by those which go there on purpose.

From *Mathew Bray* to *Montigo Point* is 6 or 7 leagues.

From *Port Morant Harbour* (on the south side of *Jamaica*) S. E. b. S. dist. 12 or 13 leagues are *Port Morant Keys*, or *Carrion Crow Hill* N. N. W. $\frac{1}{2}$ W. being the first rising hill of the *Blew Mountains* to the eastward. The keys lie from lat. 17 d. 27 m. to 17 d. 31 m. N. The easternmost key stretches S. $\frac{1}{2}$ E. and N. $\frac{1}{2}$ W. being in length 2950 feet. There are three keys: From the S. end of the easternmost key to the southernmost, is S. S. W. and from the westernmost key

key S.W. $\frac{1}{2}$ S. from the N. end of the easternmost key to the southern key S. by W. and to the western key S.S.W. $\frac{1}{2}$ W.

When *Morant Keys* bore S.W. distance 4 miles, we founded, and had 18 fathom water, stony ground, mixed with fine red speck'd gravel; and when the keys bore S.W. by S. distance 4 miles, we had 16 fathom water, and they bore S.S.W. $\frac{1}{2}$ W. distance 6 miles, we had 23 fathom and the same ground.

To anchor, coming from the eastward, borrow no nearer the reef than 6 fathom. This reef runs down by the north side of the easternmost key, and may generally be seen. Steer down to the westward by it, untill you bring the westernmost key to bear S. S. E. or S. E. by S. then hawl in for it, and you may anchor in what water you choose, from 12 to 11, 9, 8, 7 fathom, white sandy ground, and at what distance you will from the westernmost key. There is an over-fall which bears from the E. end of *Jamaica* E. by S. distance 16 or 17 leagues, having 20 fathom water on it; but it is seldom met with, being a narrow one.

From the E. end of *Jamaica*, distance 12 leagues, between the N. and N.N.E. lie the shoals called *The Formagos*, on which His Majesty's ship *Princess Mary* grounded. I have founded some places but three fathom water upon them.

From

From the E. end of *Jamaica* N.N.W. are the *Copper Hills* on *Cuba*, being the highest land on that part of the island. I have seen them and the E. end of *Jamaica* at the same time. They bear from *Montigo Point* N. 34 deg. E. distance 34 leagues; whence by their bearings, when they can be seen, you may know what places you are abreast of on the N. side of *Jamaica*.

From the E. end of *Jamaica* to *St Jago* the course is N. 6 deg. E. dist. 38 leagues.

From ditto to *Cumberland Harbour* N.N.E. dist. 47 leagues.

From ditto to *Hooka*, or *Sphincks Bay*, N. 35 d. E. dist. 51 leagues.

From ditto to the *Navasa*, E.N.E. $\frac{1}{2}$ E. dist. 22 leagues.

From ditto to *Cape Donna Maria*, E.N.E. dist. 32 leagues.

From the *Navasa* to cape *Tiberon*, E. southerly, dist. 12 leagues.

From ditto to cape *Donna Maria* N.E. by E. dist. 12 leagues.

From *Cape Donna Maria* to *Cape Nicholas*, N.E. by E. dist. 32 leagues.

From *Cape Nicholas* to the S. W. end of *Heaneago*, N. $\frac{1}{2}$ W. dist. 20 leagues.

From the S.W. end of *Heaneago* to the *Hog-sties*, N. N.W. dist. 12 leagues. The *Hog-sties* are three patches of dry low-landy keys, under the middle one of which you may

may anchor. They stretch N. and S. and all round the E. side they are encompassed with a reef.

From the *Hog-sties* to the south part of *Acklin's Key* N. 27 degrees W. distance 45 miles. The first land you usually see, is that upon the main key; the southermost part making like a key by itself, tho' it is joined to the main by a low sandy bank and reef. This southermost point lies in latit. 22 deg. 13 m. N. The reef runs about the point to the eastward, but the west side is steep to, being a bold shore all the way to the northward, as far as a point, on which stand some trees, whereas all the other parts have none. From this point the bank runs N.W. and N.W. by W. till it meets two small keys lying to the eastward of the south end of the *Long Key*, but all upon the same bank.

From the south end of *Acklin's Key* lie the *Mireprovois*. These are a parcel of rocks, some of them of a good height above water, and may be seen three leagues off. There are soundings to the N.E. about 2 or 3 miles from them.

From the south point of *Acklin's Key* to the south part of the *Long Key* the course is N. $\frac{1}{2}$ W. dist. 9 leagues. This key is bold to, so that you may go within pistol-shot all the way on the west side; but as you come to the north end, you will see two keys and openings

penings, and here the bank falls out, and there are several heads of rocks which you must be careful of, in going in to water at the wells of *Crooked Island*.

The course from the south point of *Long Key* to the wells, is N.N.E. But to know exactly where the wells are, you must come past the foresaid two openings, and then you will see a low point stretching out to the southward from *Crooked Island*, on which point are the wells, four or five in number. It will be proper to run in by the opening between this point and the small key which is to the southward of it, and there look out for a birth for your anchor, the water here being very clear.

When you are at anchor, the westernmost land of *Crooked Island* will bear W. N. W. All this north shore must be avoided, as it is very rocky. There is a small key at some distance on the bank within the point where the wells are, which will be open of the point, and bear E. by N. at your anchorage.

From the south end of *Long Key* to the *Bird Rock*, which is within a mile of the W. end of *Crooked Island*, is N. dist. 8 leagues. This rock lies in latitude 23 d. 3 m. N. and has a reef which runs from the north part of it, about 2 or 3 miles to the northward, and so to the eastward, round *Crooked Island* and *Acklin's Key*.

From

From the W. part of *Crooked Island*, or the *Bird Rock*, to the south part of *Watland's Island*, is N. distance 20 leagues.

From *Watland's Island's* south end to *Rum Key*, S.W. distance 7 leagues.

From *Rum Key* to *Little Island* (to windward) N.W. distance 5 leagues.

From *Watland's Island* to *Little Island*, ditto, W.S.W. distance 9 leagues.

From *Rum Key* to the N.W. part of *Long Island*, W. $\frac{1}{2}$ N. distance 7 leagues.

From the N.W. end of *Long Island* to *Little Island* (to windward) N. E. by E. dist. 5 leagues.

From the N.W. part of *Long Island* to *Exuma Pond*, S.W. dist. 8 leagues.

From *Exuma Pond* to *Ships Channel Passage*, between the E. end of *Isle Ethera* and *Little Island* (to leeward) N. N.W. distance 20 leagues.

From the S. E. end of *Cat Island* to *Little Island* (to windward) S.E. dist. 9 leagues.

From *Ships Channel Passage* to *Powell's Point*, N.W. dist. 17 leagues.

From *Powell's Point* to *James's Point* N.W. dist. 6 leagues.

From *James's Point* to the entrance of *Harbour Island*, N.N.W. dist. 7 leagues.

From *Harbour Island* to *Egg Island*, W. by S. dist. 8 leagues.

From *Egg Island* to *Providence Barr* S.W. $\frac{1}{2}$ W. dist. 14 leagues.

IN-

INSTRUCTIONS and OBSERVATIONS

Relative to the

GULPH PASSAGE.

Wherein, for my Reader's Convenience, it will be necessary that I repeat some Positions given in my Instructions for the Windward Passage.

I Set out from *Kingston* in *Jamaica*; it being from that place that I take my westing in this Draught, as I did my easting in the other. This place, according to Mr *Macfarling*, lies in lat. 17 d. 55 m. N. and in long. 76 d. 23 m. 15 f. W. from *London*.

As ships sail out of *Port Royal* in the morning with land winds, when you weigh anchor, keep well to the westward of the *Middle Ground*, because the current sets most commonly to the eastward in the morning; and be careful that you do not bring the church steeple over the corner of the wall where the embrasures are, before you bring *Yellow's Hill* in one with *Lime Key*: And in case you should not see *Yellow's Hill* or *Point*, there is on *Helfshire* a mount, which when open of *Salt Pond Hill*, shews that you are to the southward of the middle ground. The out

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and in leading mark is the second embrazure (counting from the westward) in one with the church steeple.

You are next to hawl up, in order to avoid the *Turtle Heads*, so as to bring the church steeple to the eastermost part of the fort, and keep that mark on, (being the leading one for the S. channel) till you bring the southern key on with *Yellow's Point*, which will carry you clear of *The three fathom Bank* and *Rack Reef*. But if you should fall so far to the leeward as to bring the church steeple near the corner of the fort, you must either come to anchor, or tack and stand in.

From *Port Royal* keys to *Portland* is S.W. but you must keep farther to the southward to avoid *Rack Reef*, and the keys and shoals which lie off *Old Harbour*. To the southward of those keys is good sounding in 16, 18, or 20 fathom water. I have sounded when the eastermost point of *Helfshire* bore N. b. E. and the outermost land in sight of *Portland* bore N.W.b.N. and had 17 and 23 fathom, and the next cast no ground with 80 fathom of line, though not a ship's length between the first and last cast.

From *Portland* E. dist. 3 or 4 miles, are two keys; and *Niger Head Rock* and the other keys lie in N. E. by which is the going into the *Old Harbour*. Right off from *Portland* there is gradual sounding for 8 or 9 miles.

To

To the westward of *Portland Point* there is a reef and a point called *Rockie Point*. As you sail to the westward, you must give it a good birth of 3 or 4 miles; and should you want to go into *Withy Wood*, you must keep so far to the westward, as to bring a little round hill in the bay to bear N. or N. b. W. and steer in for it, which will bring you in sight of the *Old Fort*, which will then be between you and the said little hill, and you will meet with these depths of water, 10, 8, 7, 6, 5, 4, and $3\frac{1}{2}$ fathom, when you will be about $1\frac{1}{2}$ mile from the shore. The fort N. N. E. is the best place to anchor in for loading, as your boats can sail on shore or aboard, with the sea winds, and then *Rocky Point* will bear E. S. E. and be in one with the land of *Portland*.

If you want to anchor off *Milk River*, you must do as for *Withy Wood*; and between this and *Pedro Point* is *Alligator Pond*, reef, and sandy key, where there is 3 fathom water within, and good soundings for a long way without it.

From *Portland Point* to *Great Pedro Point* is W. b. N. dist. 10 leagues.

From *Pedro Point* S. 7 d. E. dist. 14 leag. is the eastermost *Pedro Keys*. To anchor in 9 fathom water, hard ground, you may bring the *Eastermost Key* E. $\frac{1}{2}$ S. dist. 4 or 5 miles, the *Middle Key* S. E. $\frac{1}{2}$ S. and the *Western*
F 2 Key

Key, or *Savanna Key* S. b. E. $\frac{1}{2}$ E. there is founding for 3 or 4 leagues to the westward in the following depths, $9\frac{1}{2}$ to 7, and then to 10 fathom, hard ground.

From *Pedro Keys* S. 30 d. W. dist. 27 leag. is *Boxa Nova*, and the W. end of *Jamaica* bears from *Boxa Nova* N. by E. dist. 50 leagues, and the difference of longitude between them is 32 miles.

To anchor at *Boxa Nova*, bring the easternmost point of the reef to bear E. N. E. dist. 6 or 7 miles, and a small sandy key E. S. E. dist. 3 or 4 miles, and the westernmost breakers in sight from the deck of a 20 gun ship bearing S. S. W. and you will have hard sandy ground. I observed at anchor, and found the lat. 15 d. 57 m. N. and founded from the ship S. b. W. 2 cables length, and had 10 fathom, at 3 lengths 8 fathom, at a mile $7\frac{1}{2}$ fathom, all course sandy ground. In our founding we fell in with a rock with 7 feet water upon it. The ship bore from the rock N. b. W. $\frac{1}{2}$ W. dist. $2\frac{1}{2}$ miles, and the key E. N. E. $2\frac{1}{2}$ miles. S. b. E. $\frac{1}{2}$ E. from this rock or knowl, at the distance of a quarter of a mile, there is another knowl with 4 foot water. Both of them are steep to, and not bigger than a boat. I founded from the key to the ship $\frac{1}{3}$ of the way 5 fathom, $\frac{1}{2}$ way $7\frac{1}{2}$ and $\frac{3}{4}$ of the way $8\frac{1}{2}$.

The key is about two cables length long, and about one third broad, and stretches E.

by N. and W. by S. It was a good station for ships in the *Spanish* war ; for most ships come this way from the *Spanish* main, going to the *Havanna*.

As there is sounding off *Portland* for 8 or 9 miles, so there is off *Pedro* for 5 or 6 miles. The edge of the sounding runs E. S. E. and W. N. W.

If you should want to go into *Black River*, you must keep *Point Pedro* open of *Parrattee Point*, and that will lead you the outside of the reef. Keep on till you bring the church to bear N. N. E. easterly, or the church on with a gap in the high-land ; then steer right in for the church, and that will carry you into the best of the channel. It is full of heads of coral rocks.

The sounding comes but narrow at *Blewfields Point* ; but you may sail down by it, keeping the land to the eastward in sight, open of the point, until you open the leading mark, which is a little house upon a small hill, in one with the tavern by the water and the rivers side, they bearing, when in one, N. E. by E ; then steer in for them till you bring the easternmost point of the bay to bear S. E. by E. and then you will have 4 or 5 fathom water.

Point Pedro and the S. W. Point of *Jamaica* bear W. N. W. dist. 20 leagues.

Savanna la Mer bears from *Blewfields Point*

Point W. by N. $\frac{1}{2}$ N. distance 8 or 9 miles. The leading mark is to bring the fort N. and keep it so, which will carry you in the best channel.

All round the W. end of *Jamaica* there are good regular soundings. The S.W. *Point* lies in latit. 18 d. 18 m. N.

From the S.W. end of *Jamaica* to the *Grand Cominas*, or *Caymanis*, the course is W. by N. $\frac{3}{4}$ N. dist. 56 leagues.

From the S.W. end of *Jamaica* to the *Little Cominas*, or *Caymanis*, is N.W. $\frac{1}{2}$ N. dist. 35 leagues.

The *Caminbrack*, or *Cayman-brack*, bears from the *Little Cominas* E. N. E. dist. 2 or 3 leagues, between which is a good channel, but the *Caminbrack* is the boldest; for off the E. end of the *Little Cominas* is a reef of a mile or two. The latitude of the *Caminbrack* is 19 d. 56 m. N.

From the *Little Cominas* to the *Great Cominas* is W. S. W. dist. 18 leagues.

The *Great Cominas* is 10 leagues long, and 4 or 5 broad. The S. side lies in latitude 19 d. 21 m. N. and the N.W. point in latit. 19 d. 27 m. N. From the E. end of the island, for half way down, the shore stretches W. by S. and the other half W. by N. Off the S.W. point there is a reef of rocks for 2 or 3 miles, to which a birth must be given. From the S.W. point to the N.W. point is N. N. W.

N. N. W. dist. 4 leagues ; between which is a place called the *Hog-flies*, where there are several houses, off which you may anchor, bringing the southermost house to bear E. S. E. dist. a mile from the shore. The bottom is rocky, but you may see it where you let go your anchor.

From the E. end of the *Grand Cominas* to the S. side of the *Isle of Pines*, is N. 52 d. W. distance 52 leagues : But from the S. side of the *Isle of Pines* there is a great bank and reef stretching E. by S. dist. from the island 22 leagues. There are several keys upon this bank ; but towards the reef which environs the bank, is very low, the reef being but just above water, which makes the bank very dangerous. These keys altogether are called *The Jordans*. As for the Island itself, it is pretty bold to all the way to the southward, and S. W. side.

From the N. W. end of the *Grand Cominas* to the S. side of the *Isle of Pines*, is N. 47 d. W. dist. 48 leagues.

From the W. end of the *Grand Cominas* to *Cape Corentas*, or *Corientes*, the course is N. 52 d. W. dist. 76 leagues. The Cape is in latitude 21 d. 54 m. N.

The S. side of the *Isle Pines* lies in lat. 21 d. 22 m. N. and the *Hills* in 21 d. 57 m. When you bring the *Hills* E. N. E. then is the going in between you and them :

So

So that when you come in between the *Little Key* and *Key Blanche*, the distance between them is 4 leagues. In working in you must keep in the mid-channel, and the depth of water is 3 or $3\frac{1}{2}$ fathom: But you should keep your lead going for about a mile to the northward of the *Little Key*, because there is a spit of 12 foot water. When you have wrought up a good way in the bay, you will meet with deeper water, even to 5 or 6 fathom; but you may go within $1\frac{1}{2}$ mile of the north shore, and there anchor in $4\frac{1}{2}$ $3\frac{1}{2}$ or three fathom. There is plenty of fish, and turtle in season to be had here: There is also a running river of fresh water. When I ascended the *Hills* to take a view of the island and adjacent lands, I crossed over three little rivers, and passed several springs.

To the westward of this bay is *Philippa Bay*, with gradual soundings on the outside of the sandy keys, they making several inlets, as may be seen in the Draught. At the W. end of this bay is *Cape Gunall*, which is a bluff point, and off it is a reef of rocks for 4 or 5 miles. Three leagues to the westward of this cape, being within a mile of the shore, I set the westernmost part of the high-land of *Cape Bonivasta* or *Bonavista*, which bore N. I being then at the mast-head, saw over the land next me, and about 3 or 4 miles on the inside, I could see nothing

thing but a sand for 3 or 4 leagues more, as if the sea had been there, and beyond that a low barren land as far as the high-land, the nearest of which I judged to be 15 or 16 miles off.

Judging myself so many miles southward of those hills, I reckoned my course and distance to *Cape Corentas* or *Corientes*; but before I got there I found the hills to come on a line each over the other; and then they bore N. N. E. from me.

When you come to *Cape Corentas*, there is a reef off the point, but flat, for 3 or 4 miles. You may come to an anchor for watering, by bringing the point or cape to bear S. E. by S. in five fathom water, distance $1\frac{1}{2}$ or 2 miles. There are several wells of tolerably good water, which we cleared out; there is also a good rolling way from the wells. This right on shore, a little within the point. But for wooding, we go further up in the bay, where there are salt water ponds. Whilst you lie there, you may look over the land from the mast head, and see whatever is coming from the eastward; from whence a judgment may be formed of the height of the land.

And now I come to work my former distance, namely, from *Cape Corentas* to *Cape Antonio*, and from thence N. N. W. distance 5 leagues, when we had 15 fathom water; by

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which I find that the high-land of *Bonivasta*, bore from me, per account, E. $\frac{1}{2}$ N. dist. 22 leagues. I went up to the mast-head, being the main top gallant mast of the *Sphinx*, a 20 gun ship, and from thence saw the tops of three small hills, which bore as before; and specified *Cape Antonio*, bearing S. S. E. dist. 5 leagues at that time: And as we were coming home with the fleet of merchantmen in the year 1758, we kept working off the west end of the *Colarados* with the wind northerly, when on the 18th of *July* we were in so as to bring the *Little Dry Key* on the *Colarados* to bear E. northerly, dist. 6 or 8 miles, and from the reef 2 miles, being then in latit. 22 d. 34 m. N. As the wind was northerly, we stood to the westward, and made up the distance from the *Colarados* 14 miles before we lower'd the view of the aforesaid hills of *Cape Bonivasta* to the same resemblance I had seen them before. Thus I found that the *Colarados Reef* was so far to the eastward of my first station, or 9 miles east of *Cape Antonio*.

Being so near the *Colarados Reef*, I went to the mast-head and made my observations: At some distance on the inside I saw *clear water* (as we call it in the *West Indies*) and observed, to the best of my judgment, that the southermost end terminated in a point. To be sure of which we stood in to the south-

southward of the reef, so far as to bring the supposed point N. of us, and the key N.N.E. and when we came upon soundings (which I found to continue all the way round from *Cape Land* to the *Colarados Reef*) the southernmost point of the reef bore about West by N. from the southernmost part of the *Highland* of *C. Bonivasta*. As I know how far this high-land is to the westward, and also the latitude of the reef, I can from thence make out my account, for sailing all that way.

Another important remark which I made when coming from the *Havana*, was, that when I was but a little way N of the *Moors Castle*, I could but just see the top of the *Saddle Hill*; and when I was so far to the westward, as to bring the *Saddle Hill* south easterly, to the like height as before, I was then in latit 23 d. 56 m. N. being 20 leagues difference of latitude from the foot of the *Saddle Hill*; so that when I came along-shore to the westward, I saw the top of it the same height over the long flat hill, nearly as before, it bearing E. northerly when we were within 2 miles of the reef; then the westernmost high land of *Cape Bonivasta* bore south easterly, so that keeping the *Saddle Hill* open of the land to the westward, or the *Notch* of the *Cock's Combs* open, you will be sure to keep clear of the *Colarados Reef*. These Remarks, with

the bearings of the several appearances, as represented in the Draught, will, at all times, shew how far you are to the E. or westward.

Key Lavisa (where we had a boat on shore) bears from the *Notch* of the *Cock's-Combs* W. N. W.

Next to the *Cock's-Combs* is *Manitee Head*, eastward of them 4 leagues, and N.W. from this point is *Key Grande*, or the *Angular Key*; for from it westward, the keys or reefs stretch W. S.W. or S.W. and eastward of it they stretch E. by N. and E.

You come next to the *Saddle Hill*, which when it bears S. $\frac{1}{2}$ E. then is *Rio Porca* between you and it, the entrance of which river is distinguishable by two small bluff keys. This river is 4 leagues to the westward of the *Bay of Hunda*. Bring the *Saddle Hill* S.W. by W. and keep that bearing, it will lead you into the harbour, for it is improperly called a bay, the going in being scarce half a mile broad, though within, a number of ships may lie. There is a fresh water river, called the *River Hunda*, S. E. from the little island in the middle of the harbour, on which little island there is also a fresh well, yielding about 10 or 12 tons of water before 'tis exhausted, & soon filling again.

From *Hunda Bay* to *Porta Cavana* is 4 leagues, and from thence to the *Havana* 18 leagues more, with several inlets between, but

but unknown to us. The land is very remarkable for 5 leagues. To the westward of the *Havana* is a table land, called *Table Marial*, and the two little hills, called *Maiden Papps*, are also remarkable. Bring these *Papps* S. by E. the *Moor Castle* being between you and it, and you may run into the *Havana*. The *Moor Castle* is no less remarkable, and close by its foot is 13 fathom water.

From the *Havana* to the reef of the *Tortugas Bank* is N. W. dist. about 37 leagues; and from the *Havana* to the place where His Majesty's ship the *Looe* was cast away, since called *Looe Key*, is N. E. b. N. dist. 32 leagues, which *Key* lies in lat. 24 d. 30 m. N. and the bank and keys stretch W. from it.

From the *Havana* to the *Metances* is 22 or 23 leagues, and the land between them, as the Draught specifies, is remarkable. The coast lies almost E. and W. The *Havana* and *The Bay of Metances*, lie both nearly in the lat. of 23 d. 14 m. N.

From the *Metances* to *Looe Key* is N. westerly, dist. 25 leagues.

From the *Metances* to the *North Key* of *Cuba* is E. dist. 20 leagues, and from the same *North Key* to the W. end of *Key Sel*, N. dist. 9 leagues.

From *Key Sel* to the *Double-Headed Shot*, upon the same bank, is N. N. W. 4 or 5 leag.

From

From *Key Sel* to the *Metances* W. S. W.
dist. 22 leagues.

From the *Double-headed Shot* to *Cape Florida Reef* N. W. b. N. dist. 18 or 19 leagues.

From ditto to *Cat Key* N. E. b. N. dist. 24 leagues.

Were I to come round *Cape Antonio*, I should not chuse to come near the *Colorados*, because I look upon the current as a tides-way, or as one of the points of the river *Thames*. If you presume to go close by the point, 'tis a hundred to one if you are not catch'd in the eddy. On *July 25*, I just saw the high-land of *Cape Bonivasta* from the mast-head bearing E. tried the current, and found it to set N. W. at the rate of 1 mile an hour, and trying it 2 or 3 miles off the *Colorado's*, it went S. S. W. at the rate of $1\frac{1}{2}$ mile an hour: So that if I were coming from *Cape Antonio*, I would steer N. (allowing for the reefs to the N. N. W. of it) till I was got into the lat. of 23 d. and then to the eastward; for were you to keep in shore, you would have the S. W. current as far as the eastermost point of the *Cock's-Combs* land, as will appear by the following short extract, from my log-book, while we were going from the *Havana* to *Jamaica*.

| H | K | F | Courses | Winds | Remarks in the night, July 21, 1757, Thursday. | |
|----|---|---|---------|----------|--|---------------------------|
| 8 | 2 | 2 | W.S.W. | S. S. E. | Moderate and fair, the Saddle Hill bore | S. b. E. |
| 9 | 2 | 4 | - | - | - | S. b. E. |
| 10 | 2 | 3 | - | - | - | S. b. E. |
| 11 | 2 | 2 | - | - | - | S. $\frac{1}{2}$ W. |
| 12 | 2 | 2 | - | - | - | S. $\frac{1}{2}$ W. |
| 1 | 2 | 2 | - | - | - | S. $\frac{1}{2}$ W. |
| 2 | 2 | 1 | - | - | - | S. $\frac{1}{2}$ W. |
| 3 | 2 | 3 | - | - | - | S. $\frac{1}{2}$ W. |
| 4 | 2 | 6 | - | - | - | S. b. W. $\frac{1}{2}$ W. |
| 5 | 3 | - | - | - | - | S. b. W. |
| 6 | 4 | - | - | - | - | S. |
| 7 | 3 | - | - | - | - | |

From *Key Sel* to the *Metances* W. S. W. dist. 22 leagues.

From the *Double-beaded Shot* to *Cape Florida Reef* N.W.b.N. dist. 18 or 19 leagues.

From ditto to *Cat Key* N. E. b. N. dist. 24 leagues.

Were I to come round *Cape Antonio*, I should not chuse to come near the *Colorados*, because I look upon the current as a tides-way, or as one of the points of the river *Thames*. If you presume to go close by the point, 'tis a hundred to one if you are not catch'd in the eddy. On *July 25*, I just saw the high-land of *Cape Bonivasta* from the mast-head bearing E. tried the current, and found it to set N. W. at the rate of 1 mile an hour, and trying it 2 or 3 miles off the *Colorado's*, it went S.S.W. at the rate of $1\frac{1}{2}$ mile an hour: So that if I were coming from *Cape Antonio*, I would steer N. (allowing for the reefs to the N. N. W. of it) till I was got into the lat. of 23 d. and then to the eastward; for were you to keep in shore, you would have the S. W. current as far as the easternmost point of the *Cock's-Combs* land, as will appear by the following short extract, from my log-book, while we were going from the *Havana* to *Jamaica*.

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|----|---|---|---------|--------|--|---------------------|
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| 9 | 2 | 4 | --- | --- | --- | S. b. E. |
| 10 | 2 | 3 | --- | --- | --- | S. b. E. |
| 11 | 2 | 2 | --- | --- | --- | S. $\frac{1}{2}$ W. |
| 12 | 2 | 2 | --- | --- | --- | S. $\frac{1}{2}$ W. |
| 1 | 2 | 2 | --- | --- | --- | S. $\frac{1}{2}$ W. |
| 2 | 2 | 1 | --- | --- | --- | S. $\frac{1}{2}$ W. |
| 3 | 2 | 3 | --- | --- | --- | S. $\frac{1}{2}$ W. |
| 4 | 3 | 6 | --- | --- | --- | S. $\frac{1}{2}$ W. |
| 5 | 4 | 2 | --- | --- | --- | S. b. W. |
| 6 | 4 | 2 | --- | --- | --- | S. b. W. |
| 7 | 3 | 2 | --- | --- | --- | S. |

But when we were got so far as *Key Grande* to the westward, we went on faster, and found the current part; and when we brought the *Notch* of the *Cock's-Combs* E.S.E. and by *Key Lavisa*, we saw a turtle crawl, and sent our boat ashore, which, though not gone 4 hours, we were driven from her 6 or 7 miles to the westward, notwithstanding we strove to keep nearer, but could not. So that 'tis not the best way to keep in-shore, till you are got to the eastward of *Key Grande*.

If you would go into the bay of *Hunda*, you are to keep in by the reef that runs off the E. point, by your lead, and hawl-up S. or S. b. E. and so keep up to the E. shore till you come to a low point, from which runs a spit or shallow water. Give this a birth, then hawl up to the E. and anchor in 6 or 7 fathom, where the little island will bear S. or S.S.W.

As you are working up to go through the *Gulph*, be sure that you get so far to the eastward, as to bring the *Pan of Metances* to bear S. or S.b.E. before you put over for the *Gulph*, and then the most common course is N.N.E.

Re-

Remarks in a Cruize off the Havana, in his Majesty's Ship the LOOE, from Port Royal in South Carolina.

WHEN we were sailed out of *Port Royal Harbour*, we kept upon soundings, till we came as far to the southward as *Tybee*, and then we stood to the E. and afterward to the S. till we were got into the lat. of 26 d. N. and then run down in that parallel, and made the S. end of *Abaco*, or, *The hole in the wall*, and N. W. b. W. dist. 5 or 6 miles from it, we anchored in white water, of about 7 fathom, off a point where the key falls in, and there we got fish in plenty, for which purpose we anchored, as also to delay time for 4 or 5 hours. At 2 P. M. we weighed, and stood S. W. for the *Berry Islands*, which we made and came upon soundings at 8 ditto. The course is S. W. dist. 8 leagues; and from those islands to *Providence*, the course is S. S. E. dist. 12 leag.

When we got soundings, we kept our lead going, and we lead by it all night, keeping in, or out, as we deepened or shallowed our water; but our course was between the W. and W. b. N. and our dist. 15 leagues.

The breadth of soundings (at least from the *Berry* to *Isaac Rock*) is from 3 to 5 miles from the banks, being broadest at the rock.

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Upon the bank's edge are two small rocks, between the *Berry Island* and *Isaac Rock*, which terminates the N. W. corner of the bank.

At a cables length off the W. side of *Isaac Rock*, you have no soundings: So that as you come round it, you immediately get into ocean water, and consequently into the current of the *Gulph*. But if it should happen that the wind be at E. S. E. and you cannot lie S. or S. b. E. so as to take the current under your lee, and keep the bank on board, your best way will be to anchor, or keep in upon soundings to the northward of *Isaac Rock*, till the wind comes favourable.

By this will appear the necessity of getting to *Isaac Rock* by morning; for then you get round and keep in on the edge of the sounding, by which you will plainly discern the bank, the water being clear, and the bank white, with two small rocks between *Isaac Rock* and the island of *Bimina*; the distance between being 4 or 5 leagues almost N. and S.

At *Bimina* there is a harbour of 9 feet water, and anchorage in the opening, with a well of water on the E. point. The harbour lies in lat. 25 d. 30 m. N.

From the island of *Bimina* S. dist. 8 or 9 leagues, is *Cat Key Harbour*, or the beginning of the *Rocqueses*. From *Bimina* the sounding is narrow, and, consequently the current

current strong. From hence over to the *Florida* shore, the breadth is no more than 15 or 16 leagues. From *Cat Key* abreast of the *Rocqueses*, the sounding is pretty broad, with good anchorage, and less current, as you come to the S. E. and S. E. b. S.

From the second, or *Cat Key*, the course S. E. by S. dist. 12 or 13 leagues, is *Orange Key*, having good anchorage to the S. W. of it 5 or 6 miles, in 20 fathom water. When we get upon this flat, we think we have secured our passage through the *Gulph*, this way; for then you may make sail either in the morning, or at midnight, steering S. W. dist. 10 or 11 leagues, and so you will fall in with *Key Sel Bank*, which for 10 leagues on the north side stretches E. and W. and consequently the current sets stronger as you come to the westward. When you come over, there is good soundings all along by it, and you may discern by the bank how far you are to the eastward of the *Double-headed Shot*: For, as my draught shews, the number of rocks on the bank, there is anchorage by spots all the way in; but the soundings are narrow at the *Double-headed Shot*, the middle of which lies in latit. 23 d. 57 m. N. and S. S. E. is *Key Sel*, where there is water, dist. 4 leagues. Here the *Spaniards* make salt.

From the *Double-headed Shot* to the edge of soundings a little to the W. of *Cape Florida*, is N.W. by N. 15 leagues.

From the *Double-headed Shot* to the *Metances*, the course is S.W. by W. dist. 23 or 24 leagues, and from the *Metances* to the *Havana* W. much the same distance; off of which we cruised 5 or 6 weeks, and almost every day gave chase. The first that gave us a jaunt for the *Gulph*, was a ship from *Jamaica* bound for *South Carolina*: We followed her in a dismal dark night, and at 1 or 2 in the morning had like to have run her down. There was a constant order on board, to heave the lead every half hour, the whole cruise; and when we brought the ship to, we had 70 fathom water. As our pilots were no ways concerned, we lay there all night, and fell off to 100 fathom in the morning; at day-light we could but just see the bushes of the key off the cape from the poop, and it falling calm, we drove off soundings, and so got into the current, which carried us as far as 25 d. 30 m. N. when the easterly wind sprung up, and we went into soundings and out of the current; so hoisted our boats out, and made them keep by the outside of the reef. Whilst the ship went upon the edge of soundings, we did not only know the breadth of sounding by the distance the boats were from the ship, but they besides

besides supplied the ship's company with fish in great plenty, and so for 23 leagues, 15 of which to the N. E. of *Cape Florida*, and 8 to the W. S. W. till at last we arrived at a sandy key, where the *Looe* was cast away. At that key is the going into the inside of the reef, or the channel, through which all the *Spanish* vessels pass, that go from the *Havana* to *St Augustine*. In this channel there is ~~is~~ 4 and 5 fathom water, but in some particular places it is shallower. The channel continues as far as latit, 26 d. N. or as far as the reef runs. Off *Cape Florida* is the broadest sounding, where we met with 100 fathom, with the bushes just in sight from the poop of a 40 gun ship, and distant from the reef 6 or 7 miles. But in latitude 25 d. 30 m. are other rocks, where the *Powey* was lost: At this place there is sounding two hawsers length off the reef in 30 fathom; but one mile further it is not so broad; so that I judge the *Looe Key* to be the beginning of the sounding off *Cape Florida*, and the *Fowey Rocks* the ending.

In consequence of the foregoing observations, when we chaced we had no difficulty in going back. If we chanced to chace but as far as 25 d. 25 m. N. we went immediately in upon sounding, and up to *Looe Key*. Then we could be off the *Havana* the next day in our station; so that now we had not
near

near so much trouble as we had at our first coming on our station ; for then, between *Isaac Rock* and the two *Keys* of the *Rocqueses*, we were always afraid of driving quite through the *Gulph* ; but on this side, if we could but keep in upon sounding, we were safe.

Indeed, most men who have been through the *Gulph*, when they come so far to the northward as 24 d. 30 m. N. must be sensible that they meet with a strong current, with a rippling and boiling of the water ; which current sets between the N. E. and E. N. E. and is occasioned by the edge of sounding that comes from *Looe Key*.

The *Florida* shore does not go north, as has been formerly imagined, till you arrive in the latit. of 25 d. 40 m. N. I could heartily wish that the *Old Streights of Bahama* were thoroughly rummaged ; for by what I have seen and heard, it is not so bad a navigation as many now think it to be. I believe it to be an easy way to go to the *Mississippi*, by crossing over to the *Florida* shore, and so round the *Tortugas Bank*. On this occasion, therefore, I shall be glad to receive whatever pertinent remarks may happen to have been, or hereafter may be made, by any person acquainted with these parts, and will gratefully acknowledge the favour, directed to be left for me, at the *Jamaica Coffee-House*.

F I N I S.

Examined by
Robt. Bishop